MATH NEWS

2nd Grade Math

Module 5: Addition and Subtraction within 1,000 with Word Problems to 100

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 5 of Eureka Math (Engage New York) covers strategies for adding and subtracting within 1,000 with word problems to 100. This newsletter will discuss Module 5, Topic D.

Focus Area Topic D:

Student Explanations for Choice of Solution Methods

Words to Know:

Algorithm – a step-by-step strategy to solving a problem in which the number are lined up. (For example: add the ones, add the tens, add the hundreds, etc…)
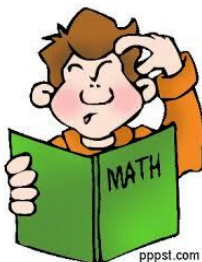
Arrow notation (the arrow way) – a strategy in which you add or subtract multiples of 1, 10, or 100 and draw arrows to point to what the number becomes after you change it.

Number Bond – a simple addition sum; they are simply the pairs of numbers that make up a given number.

Compensation – Adding or subtracting the same number to both parts of the problem in order to find a friendly number (multiple of ten), making it easier to solve the given problem.

OBJECTIVES OF TOPIC D

Choose and explain solution strategies and record with a written addition or subtraction method.

Focus Area– Topic D

This topic focuses on applying the tools and concepts used in Topics A through C.

Students will determine which strategy to apply to a variety of addition and subtraction problems, including number bond problems and problems with the unknown in all positions.

(Example: 200 + _____ = 342 or _____ – 53 = 400)

Then, students will solve and explain their chosen methods.

Possible Solution Strategies:

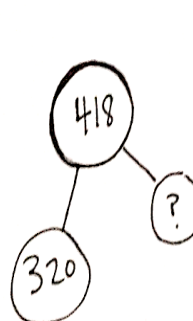**Strategy: Number Bond**

499 + 166 = _____

499 + 166
   /\
  1 165

500 + 165 = 665

Possible Explanation:
I used a number bond since 499 is so close to 500. I took 1 from 166 and added it to 499 to get 500; then I added on the rest to get 665.

Strategy: Number Bond with Algorithm

320 + _____ = 418

418
 / \
320 ?
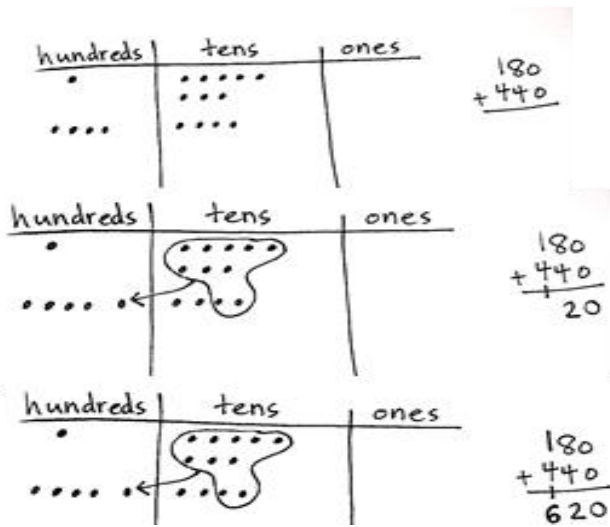
  3 1 1
  4̶1̶8̶
 - 320
 ———
   98

Possible Explanation:
I drew a number bond to show the missing part, and then I used related subtraction to solve. I thought drawing a number bond was a good idea, because it helped me know where to start to find the answer.

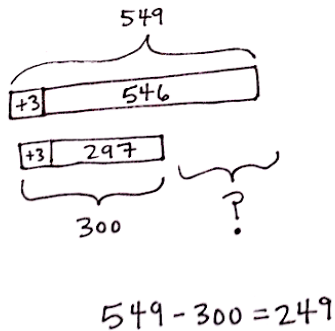**Strategy: Chip Model**

180 + 440 = ____

Possible Explanation:

I chose the chip model. The chip model took longer, but I was able to check my work easily with the drawing.

Strategy: Compensation/Tape Diagram
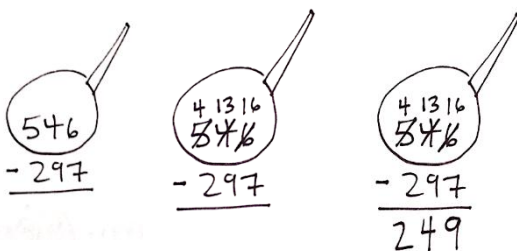
546 – 297 = ____

$$549 - 300 = 249$$

Possible Explanation:

I used compensation and added 3 to both numbers, so that I could subtract 300 instead of 297. So, 549 minus 300 equals 249. Easy!

Strategy: Algorithm

546 – 297 = ____

Possible Explanation:

I used the algorithm to solve, because I know the steps, so it doesn't take me long.